

PALESTINIAN MINISTRY OF HEALTH SAVES MONEY, IMPROVES QUALITY OF CARE THROUGH ITS HEALTH INFORMATION SYSTEM

PALESTINIAN HEALTH CAPACITY PROJECT (PHCP)

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In October 2017, the Palestinian Ministry of Health Information Technology (PMOH IT) team, led by general director Ali Al-Helou, implemented the Avicenna Health Information System (HIS) in Tubas Turkish Hospital, bringing the total number of hospitals using the system to ten and demonstrating the ministry's capacity to independently manage all aspects of the system.

The digital system allows health workers to input, access, and track patient information more efficiently than the previous, paper-based system, resulting in improved quality of care for clients and greater accuracy, efficiency, and accountability for health workers.

The Palestinian Health Capacity Project (PHCP), led by [IntraHealth International](#) with funding from the US Agency for International Development (USAID), is helping the ministry implement and expand the system in four governmental hospitals throughout the West Bank. The Tubas implementation was the first to be conducted solely by the ministry—a key achievement toward sustainability of the system.



HIS Administrator Ahmad Abu Salha and Dr. Said Daraghmeh training on the HIS in the pharmacy at Tubas Turkish Hospital. November 2017. Photograph by Ramia Abdallah for IntraHealth International.



Fawwaz Jaber with health workers in the hematology department at Tubas Turkish Hospital. November 2017. Photograph by Alyssa Rhodes for IntraHealth International.

Tubas Hospital director Dr. Mohammed Samara and the management team are proponents and champions of the system. Having used the system in other hospitals, Dr. Samara was eager to implement the HIS in Tubas. He aims to have the HIS function as a complete archive, eliminating the need for a paper-based system.

According to Dr. Samara, the system has helped



Diab Mahareeq discussing his experience working on the HIS at a PHCP workshop for PMOH IT staff. January 2017. Photograph by Amjad Suleiman for IntraHealth International.

improve the quality of care and decreased waiting times for clients, as well as increased overall accountability, including preventing preferential treatment. He uses reports generated by the system to monitor the number of clients, the services provided, and the quality of the data put into the system by doctors and other health workers. The ease and speed with which he receives lab results helps inform decisions to request more complex and costly tests for patients.

Prior to Tubas, the PMOH IT team had helped with eight HIS implementations led by external contractors. After receiving HIS administration training in early 2017, the team assumed a stronger role in implementing the system. The ministry's HIS administrators often slept overnight in the hospitals to ensure they were familiar with, and able to solve, all issues related to the system.

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"In the first eight hospitals, the external contractor implemented the system while our team was only able to offer support and follow-up," says HIS administrator Diab Mahareeq. "We could not roll out the HIS in a new facility on our own. Now, we are capable of solving problems that the external contractor could not, because we know the system in detail."

By installing the system and training users itself, the ministry saved approximately 9,940 NIS (US\$2,840) per hospital bed. Tubas Hospital has 43 beds, meaning the ministry saved a total of 427,000 NIS (\$122,120) on implementation alone. The system has also resulted in cost savings in the pharmaceutical department because health workers are now able to more accurately track medications dispensed.

"It's been really rewarding," says HIS administrator Alaa Abu Eisheh. "We've spent so much time with the hospitals and system users, so we knew how to approach the implementation and trainings and could anticipate what kinds of challenges we would face. People depend on the system now in Tubas."

"This system benefits the whole country," HIS administrator Fawwaz Jaber says, "because it has digitized all the archives and patient records. Doctors can now access records for



Alaa Abu Eisheh training health workers on the HIS system at Tubas Turkish Hospital. October 2017. Photograph by Riham Zalloum for IntraHealth International.

any patient in any hospital utilizing the system. At first, doctors and nurses were scared to use the system. With supportive on-the-job training, they got used to the system, and now they don't want to go back."

Many users have noted the improved speed and accuracy, and how the trainings conducted by the ministry team made the transition to the HIS smoother. One lab technician noted that she no longer has to wait for a person to hand-carry urgent results to the emergency room or operating theater, where minutes matter in the management and outcome of a patient's treatment.

"The lack of paper at Tubas hospital shows how staff are adopting the HIS system quickly," says Wayan Vota, IntraHealth's director of digital health, who visited Tubas Hospital in November. "What was once paper passed back and forth, occasionally lost, and always filed away to be forgotten, is now living data, driving diagnosis and recovery. The HIS has the ministry speeding past private hospitals, which are mainly still using paper."

The team hopes Tubas Hospital can be a learning experience for other Palestinian hospitals.

The implementation of the HIS in Tubas Hospital was conducted under the leadership of Ali Al-Helou, the general director of the Computer and Engineering Department at the Palestinian Ministry of Health. The entire ministry IT team—Diab Mahareeq, Fawwaz Jaber, Ahmad Abu Salha, Alaa Abu Eisheh, Dima Samara, Nour Ismail, Khawla Daghlas, Muath Lahlabat, and Abdallah Bsharat—contributed to the success of implementing the HIS system throughout the West Bank.

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